

## ABSTRACT

The invention relates to a particle injector for introducing particles into a carrier flow of a microfluidic system, especially for injecting biological cells into the carrier flow of a cell sorter. The particle injector includes an inlet for receiving the carrier flow, an outlet for discharging the carrier flow including the introduced particles, a carrier flow channel which connects the inlet to the outlet, and an injection channel flowing into the carrier flow channel for introducing the particles into the carrier flow. The inventive particle injector is characterized in that the carrier flow channel has substantially no dead volume.